December-17-12 3:11:18 PM Item ID: D3067-1 Accept *N900040100* Setup Start **Revision ID:** Item Name: End Plate **Start Date:** 17/12/2012 **Start Qty: 40.00** *40* Cust Item ID: **Required Date:** 02/01/2013 Req'd Qty: 40.00 **Customer:** Reference: Run Start Process Plan: MLS Date: 12-12-12 Tooling: Approvals: Date: QC: _____ Date: ____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description **Run Hours** Code Qty Qty Number Stamp Draw Nbr **Revision Nbr** D3067 Rev A 100 0.00 FLOW WATER JET *100* Jm 13-1-21 Waterjet 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg D3067 Dwg Rev: 5052.063 Prog Rev: 2-Deburr if necessary 110 QC2- Inspect parts off machine FAI/FAIB 0.00 *110* JM 13-1-21 QC Memo 0.00 Quality Control 120 QC8- Inspect parts - second check *120* Memo Quality Control

												DQA:	Da	te:	
NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	MANCE / UPD	DATE		_			•
		•										QA Closed:	Da	te:	
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i work ordi	Ç1.	 .				Rework	ı		Skid-tube	Crosstube	٦		Water Jet		Engineering
Part I	Vo.					Scrap			Machining	Small Fab	┨	Proc	d. Eng. Coor.	Н	Quality
		-				Use-as-is		Therm	noforming	Finishing	٦	Rec/Stor	e/Packaging		Other
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Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descri	iption	4	Date	Verificatio	n	QC Inspector
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		Centre N	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
}		Cracks				Broken/Damaged		Inspecti	on Incomplete			Part Incorred	ct		Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/U	Inclear		Part Lost/Mi	ssing		Wrong Stock Pulled
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`		Inspectio	n Strip in	Tube		Cut Too Short		Misread	1	Γ		Power Loss/	Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

December-17-12 3:11:18 PM

94419

Page 2

Revision ID:	D3067-1 End Plate			Accept	*N900	1 040	100) * ፡	Setup Sta Sto	1 \	S1* S2*	
Start Date: Required Date: Reference:	17/12/2012 02/01/2013	Start Qty: 40.00 Req'd Qty: 40.00	*40* *40*		Cust Item Customer						.S./"	
Approvals:		n:				Date:		1	Run Sta Sto	1/	IR1* IR2*	
Sequence ID/ Work Center ID 130 *130* Brake NC Brake NC	•	Operation Description NC BRAKE Memo Bend as per I	Dwg D3067	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Qty	Reject Number	Insp. Stamp	B Block
*140 *140* QC Quality Control	-	QC5- Inspect part comple Memo	eteness to step on W/O	0.00 13 1 J				con			-	-
*150 *150* Packaging Packaging		Identify as per dwg & Stor Memo *** STOCK I	ck Location:	0.00				108			0A 19 9-9-9-13-01	

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORI	MANCE / UP	DATE			
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Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part						Rework Scrap Use-as-is		ľ	Skid-tube Machining noforming	Crosstube Small Fab Finishing	•	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
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Cause	T .	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
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1000	:	C				r General	AUL	.I CAIE	GORT			-	
Land	Ing (7				Bend		Grain			Ovalized		Pressure/Forced
	\vdash	Bending	- t C		0/5	BOM/Route	\vdash	Hardwa			Over/Under	talaransa	Temperature/Cure
	-	Centre N	ot Concer	TUTIC TO	^{0/3} -	-i	\vdash	4		 	1	 	Weld
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1	1	Inspectio	n Strip in	Tube		Cut Too Short		Misread	t		Power Loss,	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

December-17-12 3:11:18 PM Item ID: D3067-1 Accept *N900040100* Setup Start **Revision ID:** Item Name: End Plate **Start Date:** 17/12/2012 **Start Qty: 40.00** *40* **Cust Item ID: Required Date:** 02/01/2013 Req'd Qty: 40.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: _____ Tooling: Date: Stop QC: ____ Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Stamp Number 160 QC21- Final Inspection - Work Order Release 0.00 *160* QC Memo 0.00 MF () Quality Control

			DQA:	Date:
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE		
			QA Closed:	Date:

									QA Closed:	Date	2:
Work Orde					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No	0			· · · · · · · · · · · · · · · · · · ·	Rework Scrap Use-as-is Work Order Update	Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	Initial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training			,								
Unapproved		1.				AULT CATE	L		<u> </u>		
Landin	g Gear				General	HOEF CATE	<u> </u>				
	Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in Torque W	Crimped at n Strip in n Bend	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing	Instruct Mainte Mislabe Misread Offset	ion Incomplete tions Incomplete/l enance eled	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
-	Turning S			' ⊢	Finish	\vdash	Sequence			·	
<u> </u>	Wave/Tw	•			Folio	\vdash	e Dimensions		· · · · · · · · · · · · · · · · · · ·		

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Picklist Print

December-17-12 3:11:21 PM

Work Order ID: 94419

94419

D3067-1 Parent Item:

Parent Item Name: End Plate

D3067-1

Start Date: 17/12/2012

Required Date: 02/01/2013

Start Qty: 40.00

Required Qty: 40.00

Comments:

IPP: 03.01.21 Remove step 6 (Deburr) ΚJ

IPP Rev:B Now on Water jet 06-06-16 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M5052H32S.063		Purchased	No			100	sf	94.8053	0.0625	2 (21-				
*M5052H3	325 063	*					<i>3.</i>) 1.0055	**	2051313	7 .0		~	

5052-H32 .063 Sheet

Location	Loc Qty	Loc Code	
MAT022	94.805264		
114322	25.705264		
120603	38		120603
121901	31.1		10000

NCR:	Yes /	No				WORK ORDER NON-O	O	NFORM	MANCE / UP		QA Closed:	Date:		
Work Orde	or:					DISPOSITION				AGAINST DEI				
Part f	 No					Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite				Water Jet Engineer Prod. Eng. Coor. Qua Rec/Store/Packaging Ot Supplier		
Root		-			Descri	ption of work order update	ı	nitial	Act	tion	Sign &			
Cause	. נ	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved														
							AUL	T CATE	GORY					
Landi	ing Gea	r nding				General Bend		Grain			Ovalized		Pressure/Forced	

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Broken/Damaged

DOA

Over/Under tolerance

Part Incorrect

Part Moved
Positioned Wrong

Part Lost/Missing

Power Loss/Surge

Temperature/Cure

Wrong Stock Pulled

Weld

Other

Date:

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

DART AEROSPACE LTD	Work Order:	94419
Description: End Plate	Part Number:	D3067-1
Inspection Dwg: D3067 Rev: A		Page 1 of 1

	Fi	RST ARTICLI	E INSPEC	TION CH	ECKLIST	
		X First A	Article	Pro	totype	
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.900	+/-0.010	2.904	-		V	Jkmoi
2.749	+/-0.010	2.905	-		U	
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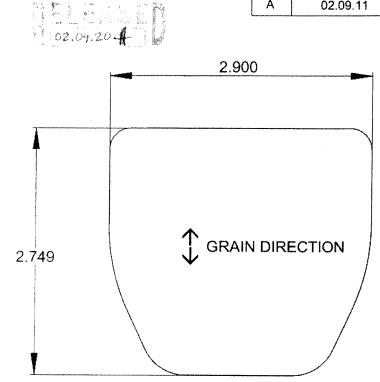
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Measured by: Im	Audited by:	VAS	Prototype Approval:	N/A
Date: 13-1-21	Date:	13 m/2)	Date:	N/A

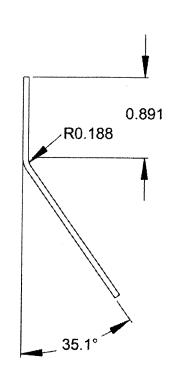
Rev	Date	Change	Revised by	Approved
Α	03.10.07	New Issue	KJ/RF	



DESIGN D		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECK	7	APPROVED	DRAWING NO. D3067	REV. A SHEET 1 OF 1
DATE	02.09.11		END PLATE	SCALE 1:1
А	A 02.09.11		NEW ISSUE	·



D3067-1 FLAT PATTERN



D3067-1 BEND DETAIL

D3067-1 END PLATE

1) MACHINE PER DWG FILE "D3067-1.SLDPRT"

2) MATERIAL: 5052-H32 PER QQ-A-250/8 (REF DART SPEC. M5052H32S.063) OR 6061-T6 PER QQ-A-250/11 (REF DART SPEC. M6061T6S.063) ALUMINUM SHEET, 0.063 THICK

3) FINISH: NONE 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 5) ALL DIMENSIONS ARE IN INCHES

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